

**Transmittal** 

# McPHAIL ASSOCIATES, INC.

CONSULTING GEOTECHNICAL ENGINEERS 30 NORFOLK STREET, CAMBRIDGE, MA 02139

TEL: (617) 868-1420 FAX:(617) 868-1423 www.mcphailgeo.com

			JUN 1 6 2006				
То:	Office of Ed EPA-New E 1 Congress Suite 1100		C) Start process a 1980				
Attention:	Ms. Marely	n Toro	OVERNIGHT				
Date:	June 16, 20	006					
Re:	Museum of	Fine Arts	X COURIER				
Job No:	4166		`				
COPIES	<u>DATE</u>	DESCRIPTION					
1	06/14/2006	Notice of Intent for Disch	arge Under RGP MA9100000				
1	06/15/2006	NOI Form					
1	06/15/2006	BWSC Discharge Permit	application Form				
These are trans	smitted as check		For review and comment				
Bosto	achusetts DEP n Water & Sew	, Division of Watershed Ma ver Commission (Attn: Mr. Arts (Mr. Charles H. Hall)	anagement (Attn: Mr. Robert D. Kubit) Frances McLaughlin)				

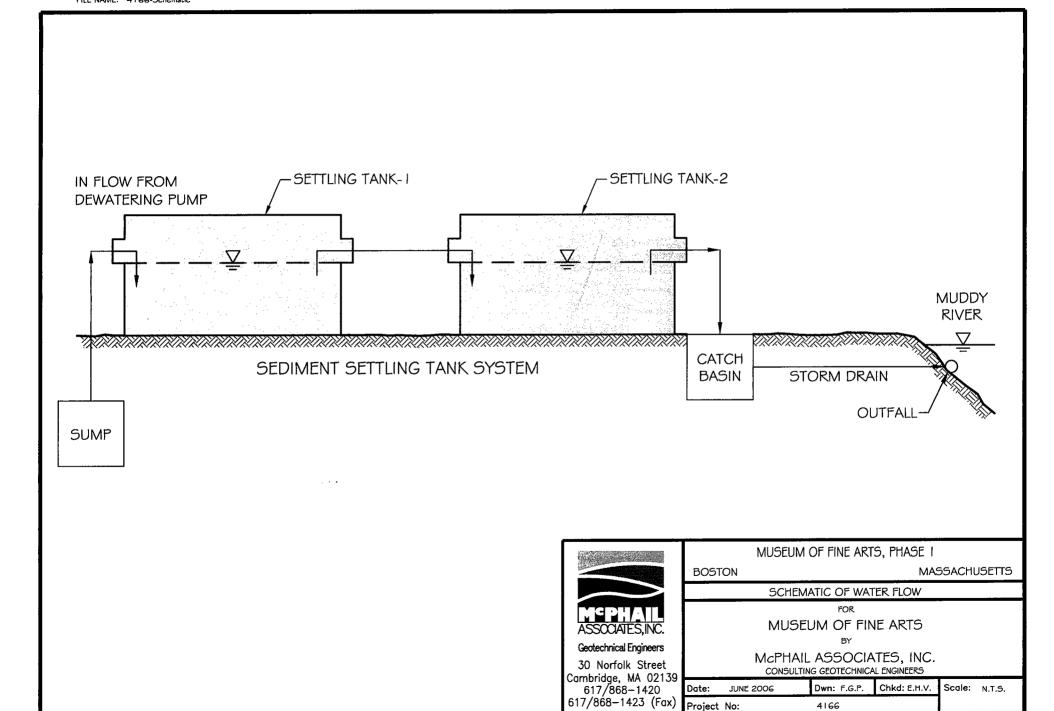
Signed

### B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General site information. Please provide the following information about the site:

a) Name of facility/site:  Museum of Fine Arts, Boston			Facility/site address: 465 Huntington Avenue; Boston				
Location of <b>facility/site</b> : longitude: 71.09 latitude: 42.34	Facility SIC cod	e(s):	Street: 465 Huntington Avenue				
b) Name of facility/site owner: The Museum of F	ine Arts	;	Town: Boston	-			
Email address of owner: chall@mfa.org			State: MA	Zip: 02115	County: Suffolk		
Telephone no.of facility/site owner: (617) 369-308	31						
Fax no. of facility/site owner: (617) 369-315  Address of owner (if different from site):	6		Owner is (check one): 1. Federal 2. State/Tribal 3. Private _ \(  \) 4. other, if so, describe:				
Street:							
Town:		State:	Zip:	County:			
c) Legal name of operator:  The Museum of Fine Arts		Operator telep	ohone no: (617) 369-3081				
The Middenia of I me / Mid		Operator fax n	no.: (617) 369-3156	Operator email: chall@mfa.org			
Operator contact name and title: Charles H. Hall, F	Project Manager	M	h H Hall	•			

Address of operat	or (if different fr	om owner):	Street:								
Town:			State:	Zip:	County:						
d) Check "yes" or "no" for the following:  1. Has a prior NPDES permit exclusion been granted for the discharge? Yes No ✓, if "yes," number:  2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes No ✓, if "yes," date and tracking #:  3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes ✓ No  4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes No_✓											
e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes No ✓  If "yes," please list:  1. site identification # assigned by the state of NH or MA:  2. permit or license # assigned:  3. state agency contact information: name, location, and telephone number:  f) Is the site/facility covered by any other EPA permit, including:  1. multi-sector storm water general permit? Y N _ ✓, if Y, number:  2. phase I or II construction storm water general permit? Y N _ ✓, if Y, number:  3. individual NPDES permit? Y N _ ✓, if Y, number:  4. any other water quality related permit? Y N _ ✓, if Y, number:											
2. Discharge inf	ormation. Pleas	e provide information about the di	ischarge, (attachi	ng additional sheets as needed)	including:						
a) Describe the dis	charge activities	for which the owner/applicant is s	eeking coverage	:							
Construction de	ewatering for con	struction of a new wing at the east	t end of the muse	eum. See attached report.							
b) Provide the following information about each discharge:  1) Number of discharge points:  2) What is the <b>maximum</b> and <b>average flow rate</b> of discharge (in cubic feet per second, ft³/s)? Max. flow 0.22  Average flow 0.78 Is maximum flow a <b>design value</b> ? Y N ✓  For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.  Average flow = 0.078 cfs (35 gpm) (estimated value based on maximum excavation).											
3) Latitude and longitude of each discharge within 100 feet: pt.1:long. 71.09 lat. 42.34; pt.2: long. 71.09 lat. 42.34; pt.3: long. lat. ; pt.4:long. lat. ; pt.5: long. lat. ; pt.6:long. lat. ; pt.6:long. lat. ; pt.7: long. lat. ; pt.8:long. lat. ; etc.											



Chkd: E.H.V.

Scale: N.T.S.

Dwn: F.G.P.

4166

Date:

Project No:

JUNE 2006

4) If hydrostatic testing, total volume of the discharge (gals):	5) Is the discharge intermittent or seasonal? Is discharge ongoing Yes No ?
c) Expected dates of discharge (mm/dd/yy): start 07/05/06 e	end09/30/07
d) Please attach a line drawing or flow schematic showing water fl. sources of intake water, 2. contributing flow from the operation,	low through the facility including:  1, 3. treatment units, and 4. discharge points and receiving waters(s).

SEE ATTACHED SCHEMATIC

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for all of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only	Primarily Metals	Urban Fill Sites 🗸	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants	Petroleum with Other Contaminants	Listed Contaminated Sites	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is believed present or believed absent in the potential

discharge. Attach additional sheets as needed.

PARAMETER	Believe Absent	Believe Present	# of Samples	Type of Sample	Analytical Method	Minimum Level (ML) of	Maximum daily	value	Avg. daily value	
	, and a second		(1 min- imum)	(e.g., grab)	Used (method #)	Test Method	concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids		✓	. 1	grab	160.2	25.0	34	6.50		
2. Total Residual Chlorine	✓		1	grab	330.1	50.0	ND			
3. Total Petroleum Hydrocarbons	✓		1	grab	1664A	4,000	ND			
4. Cyanide	✓		1	grab	335.2	5	ND			
5. Benzene	✓		1	grab	624	1.0	ND			
6. Toluene	1		1	grab	624	1.0	ND			
7. Ethylbenzene	✓		1	grab	624	1.0	ND			
8. (m,p,o) Xylenes	✓		1	grab	624	2.0	ND			
9. Total BTEX4	✓		1	grab	624	2.0	ND			

NOTE: SAMPLES OBTAINED FROM MONITORING WELLS

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PARAMETER	Believe Absent	Believe Present	# of Samples	Type of Sample (e.g.,	Analytical Method	Minimum Level (ML) of	Maximum daily	value	Avg. daily value	e
			(1 min- imum)	grab)	Used (method #)	Test Method	concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide (1,2- Dibromo-methane)	✓		1	GRAB	504.1	0.019	ND			
11. Methyl-tert-Butyl Ether (MtBE)	✓		1	GRAB	624	20	ND			
12. tert-Butyl Alcohol (TBA)	✓		1	GRAB	624	100	ND			
13. tert-Amyl Methyl Ether (TAME)	1		1	GRAB	624	20	ND			
14. Naphthalene	✓		1	GRAB	8270	0.2	ND			
15. Carbon Tetra- chloride	1		1	GRAB	624	1.0	ND			
16. 1,4 Dichlorobenzene	✓		1	GRAB	624	5.0	ND			
17. 1,2 Dichlorobenzene	<b>✓</b>		1	GRAB	624	5.0	ND			
18. 1,3 Dichlorobenzene	✓		1	GRAB	624	5.0	ND			
19. 1,1 Dichloroethane	✓		I	GRAB	624	1.5	ND			
20. 1,2 Dichloroethane	✓		1	GRAB	624	1.5	ND			
21. 1,1 Dichloroethylene	<b>✓</b>		1	GRAB	624	1.0	ND			
22. cis-1,2 Dichloro- ethylene	✓		1	GRAB	624	1.0	ND			
23. Dichloromethane (Methylene Chloride)	1		1	GRAB	624	5.0	ND			
24. Tetrachloroethylene	1		1	GRAB	624	1.5	ND			

PARAMETER	Believe Absent	Believe Present	# of Samples	Type of Sample (e.g.,	Analytical Method Used	Minimum Level (ML) of Test	Maximum daily	value	Avg. daily Valu	e
			(1 min- imum)	grab)	(method #)	Method	concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	✓		I	GRAB	624	2.0	ND			
26. 1,1,2 Trichloroethane	✓		1	GRAB	624	1.5	ND			
27. Trichloroethylene	✓		1	GRAB	624	1.0	ND			
28. Vinyl Chloride	✓		1	GRAB	624	2.0	ND			
29. Acetone			1	GRAB	624	10	ND			
30. 1,4 Dioxane	✓		1	GRAB	624	2,000	ND			
31. Total Phenois		✓	1	GRAB	420.1	30	60	0.0115		
32. Pentachlorophenol	✓		1	GRAB	8270	0.78	ND			
33. Total Phthalates <sup>5</sup> (Phthalate esthers)	✓		1	GRAB	8270	9.8	ND			
34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	✓		1	GRAB	8270	9.8	ND			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	GRAB	8270	0.2	ND			
a. Benzo(a) Anthracene	✓		1	GRAB	8270	0.2	ND			
b. Benzo(a) Pyrene	✓		1	GRAB	8270	0.2	ND			
c. Benzo(b)Fluoranthene	1		1	GRAB	8270	0.2	ND			
d. Benzo(k) Fluoranthene	✓		1	GRAB	8270	0.2	ND			
e. Chrysene	✓		1	GRAB	8270	0.2	ND			

<sup>&</sup>lt;sup>5</sup>The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples	Type of Sample (e.g.,	Analytical Method Used	Minimum Level (ML) of	Maximum daily v	/alue	Average daily v	alue
			(1 min- imum)	grab)	(method #)	Test Method	concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	<b>✓</b>		1	GRAB	8270	0.2	ND			
g. Indeno(1,2,3-cd) Pyrene	1		1	GRAB	8270	0.2	ND			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	GRAB	8270	0.2	ND			
h. Acenaphthene	✓	_	1	GRAB	8270	0.2	ND			
i. Acenaphthylene	✓		1	GRAB	8270	0.2	ND			
j. Anthracene	✓		1	GRAB	8270	0.2	ND			
k. Benzo(ghi) Perylene	✓		1	GRAB	8270	0.2	ND			
l. Fluoranthene	✓		1	GRAB	8270	0.2	ND			
m. Fluorene	✓		1	GRAB	8270	0.2	ND			
n. Naphthalene-	✓		1	GRAB	8270	0.2	ND			
o. Phenanthrene	✓		1	GRAB	8270	0.2	ND			
p. Pyrene	✓		1	GRAB	8270	0.2	ND			
37. Total Polychlorinated Biphenyls (PCBs)	✓		1	GRAB	608	0.258	ND		·	
38. Antimony		✓	1	GRAB	6020	0.5	1.1	0.0002		
39. Arsenic		✓	1	GRAB	6020	0.5	9.5	0.0018		
40. Cadmium	✓		1	GRAB	6020	0.2	ND			
41. Chromium III		✓	1	GRAB	6020	0.5	2.6	0.0005		
42. Chromium VI	✓		1	GRAB	3500CR	20	ND			

PARAMETER	Believe Absent	Believe Present	# of Samples	Type of Sample (e.g.,	Analytical Method	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
			(1 min- imum)	grab)	Used (method #)		concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper		✓	1	GRAB	6020	0.5	13.4	0.0026		
44. Lead		✓	1	GRAB	6020	0.5	0.8	0.0002		
45. Mercury	1		1	GRAB	245.2	0.2	ND			
46. Nickel		1	1	GRAB	6020	0.5	6.3	0.0012		
47. Selenium		✓	1	GRAB	6020	1.0	9	0.0017		
48. Silver	✓		I	GRAB	6020	0.5	ND			
49. Zinc		✓	1	GRAB	6020	5.0	38	0.0073		
50. Iron		✓	1	GRAB	200.7	50	97000	18.53		
Other (describe):										
	. I		<u> </u>	<u> </u>						

c) For discharges where metals are believed present, please fill out the following:

Step 1: Do any of the metals in the influent have a reasonable potential to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y _ V _ N	If yes, which metals? Arsenic, cadmium copper, lead, mercury, zinc
Step 2: For any metals which have reasonable potential to exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals?  Metals: Copper, Selenium and Iron  DF: 5-50	Look up the limit calculated at the corresponding dilution factor in <b>Appendix IV.</b> Do any of the metals in the <b>influent</b> have the potential to exceed the corresponding <b>effluent</b> limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)?  Y V N If "Yes," list which metals:  Iron

4. Treatment system inform	ation. Please de	escribe the treatme	ent syst	em using separ	rate sheets as necessa	ry, including:	<del></del>				
a) A description of the treatr	nent system, inc	luding a schemati	c of the	proposed or e	xisting treatment sys	tem:					
The discharge will be passed storm drain system, and add	l through two se itional filtration	ttling tanks, each and/or metal treat	5,000 g ment w	allons in capac rill be added to	city, in series. A test meet permit limits	of the effluent will be	completed	prior to disc	charge into the		
b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper		Oil/water separator		Equalization tanks	Вад	g filter	GAC filter		
	Chlorination	Dechlorination	on	Other (please describe): An ionization tank will be added if pre-discharge testing of the effluent indicates an exceedand dilution range concentrations for metals							
c) Proposed average and ma Average flow rate of dischar	ximum flow ra	tes (gallons per m Maximum flow				w rate(s) (gallons per esign flow rate of treat			t system:		
d) A description of chemical	additives being	used or planned t	o be us	ed (attach MSI	DS sheets):						
None											
5. Receiving surface water(s	). Please provid	e information abo	ut the r	eceiving water	(s), using separate sh	neets as necessary:					
a) Identify the discharge path		Direct		in facility	Storm drain ✓	River/brook	Wetlands		Other (describe):		
b) Provide a narrative descrip	otion of the disc	harge pathway, in	cluding	the name(s) o	f the receiving water	s:		!·			
See Figures 3 & 4 in attached Way, either through an un-nu						dy River from storm de	rains along (	Гhe Fenway	and/or Forsyth		

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:  1. For multiple discharges, number the discharges sequentially.  2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water  The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas. See Figures 3, 4 and 5 in attached report
d) Provide the state water quality classification of the receiving water B,
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 6 cfs  Please attach any calculation sheets used to support stream flow and dilution calculations. See attached report
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes No ✓ If yes, for which pollutant(s)?  Is there a TMDL? Yes No ✓ If yes, for which pollutant(s)?  Bacteria (scheduled for completion in 2004)
6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.
a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? YesNo_✓ Has any consultation with the federal services been completed? No_✓ or is consultation underway? No_✓ No_✓ What were the results of the consultation with the U.S. Fish and Wikdlife Service and/or National Marine Fisheries Services (check one):  a "no jeopardy" opinion?or written concurrence on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?
b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?  Yes No ✓ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes No ✓

7. Supplemental information. :	
Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) require	ed by the general permit.
See attached report, "Notice of Intent for Construction Dewatering Discharge Under RGP MA910000, Museum of Fine Arts, Boston"	

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name: The Museum of Fine Arts, Boston

Operator signature:

PROTECT MAR 6/15/2006 Title:

Date:

# Boston Water and Sewer Commission's Dewatering Discharge Permit Application

Facility/Business Na	The Museum of Fine Arts, Boston
	465 Huntington Avenue, Boston MA 02115-5597
Authorized Represe	entative concerning information provided herein:
	les H. Hall Title: Project Manager
	9-3081 <b>Beeper #: Fax #:</b> 617-369-3156
	being dewatered: The Museum of Fine Arts
Location of Dischar	ge:
Street 465 Hunti	ngton Avenue Neighborhood Back Bay Fens Phone # 617-369-3081
Discharge is to a:	Sanitary Sewer Combined Sewer Storm Drain (Circle One)
BWSC Outfall #: _	Receiving Waters: Muddy River
	ges: 07/05/2006 To 09/30/2007 (Provide anticipated dates of discharge)
Groundwater R	temediation Tank Removal/Installation _X Foundation Excavation
Utility/Manhole	Pumping Test Pit Trench Excavation
Accum. Surface	Water Hydrogeologic Testing Other
== Permanent Discharg	ges:
Foundation Dra	ninage Crawl Space/Footing Drain.
Accumulated S	urface Water Non-contact/Uncontaminated Cooling
Non-contact/Un	contaminated Process Other
the sewer p	te Plan showing the source of the discharge and the location of the point of discharge (i.e. ipe or catch basin). Include meter type, meter number, size, make and start reading. All are assessed current sewer charges.
2. If dischargi permit or a	ng to a sanitary or combined sewer, attach a copy of MWRA's Sewer Use Discharge pplication.
application,	ng to a separate storm drain attached a copy of EPA's NPDES Permit or NOI or NPDES Permit exclusion letter for the discharge, as well as other relevant See attached report
	Drainage Permit will be denied or revoked if applicant fails to obtain the necessary m MWRA or EPA.
Ma Bos 980	Francis M. McLaughlin Phone: 617-989-7000 Inager, Engineering Customer Services Fax: 617-989-7716 Ston Water and Sewer Commission Harrison Ave. Ston, MA 02119
Date Received:	Comments:

# Boston Water and Sewer Commission's Dewatering Discharge Permit Application

Facility/Busine	ss Name: The Museum of Fine Arts, Boston
Mailing Addre	ss: 465 Huntington Avenue, Boston MA 02115-5597
Authorized Re	presentative concerning information provided herein:
Name: Mr. C	Charles H. Hall Title: Project Manager
	-369-3081 Beeper #: Fax #: 617-369-3156
	erty being dewatered: The Museum of Fine Arts
Location of Dis	charge:
Street 465 Hu	Neighborhood Back Bay Fens Phone # 617-369-3081
	a: Sanitary Sewer Combined Sewer Storm Drain (Circle One)
BWSC Outfall	#: CSO-46 Receiving Waters: Muddy River
	charges: 07/05/2006 To 09/30/2007 (Provide anticipated dates of discharge)
Groundwa	ter Remediation Tank Removal/Installation _X Foundation Excavation
Utility/Mar	nhole Pumping Test Pit Trench Excavation
Accum. Su	rface Water Hydrogeologic Testing Other
Permanent Disc	
Foundation	Drainage Crawl Space/Footing Drain.
Accumulate	ed Surface Water Non-contact/Uncontaminated Cooling
Non-contac	et/Uncontaminated Process Other
the sew	a Site Plan showing the source of the discharge and the location of the point of discharge (i.e. ver pipe or catch basin). Include meter type, meter number, size, make and start reading. All rges are assessed current sewer charges.
2. If disch permit	narging to a sanitary or combined sewer, attach a copy of MWRA's Sewer Use Discharge or application.
applica	narging to a separate storm drain attached a copy of EPA's NPDES Permit or NOI ation, or NPDES Permit exclusion letter for the discharge, as well as other relevant ation. See attached report
4. Dewate permits	ering Drainage Permit will be denied or revoked if applicant fails to obtain the necessary s from MWRA or EPA.
Submit to:	Mr. Francis M. McLaughlin Phone: 617-989-7000 Manager, Engineering Customer Services Fax: 617-989-7716 Boston Water and Sewer Commission 980 Harrison Ave. Boston, MA 02119
Date Received:	Comments: